Recreation Resource Assessment
For
Deer Valley 4wd Meadow Restoration and Blue Lakes Road Maintenance Project

Eldorado National Forest, Amador Ranger District

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Proposed Action:

Deer Valley 4wd trail: The proposed action would include corrective actions to reduce resource impacts associated with the Deer Valley Trail at meadows 9N83-2 and 9N83-1 and to limit potential impacts to Yosemite toad from public motor vehicle travel after the trail is reopened. Proposed action items include:

1) **MVUM**: Add Deer Valley 4wd trail (19E01) back to the MVUM.
2) **Forest Order**: A seasonal closure from January 1st to July 31st would be instituted for the portion of Deer Valley 4wd trail currently closed under the Travel Management SEIS to limit impacts to Yosemite toads from public wheeled motor vehicle use.
3) **Trail Reroute**: A short reroute (< 500 feet) of 19E01 on the west side of Deer Creek would be completed in order to move the trail away from areas of active stream bank erosion while improving the angle of approach to the existing stream crossing.
4) **Hardening crossing at Meadow 9N83-2**: Native rock and boulders from the trail or the Clover Valley sediment field would be imported to harden the approaches to Deer Creek using large cobbles and rock between 8-16" diameter. The stream crossing would also be delineated with boulders to limit the width of the crossing at both sides of Deer Creek.
5) **Stream Bank Restoration**: The proposed project would restore stream banks in Deer Valley (9N83-2) and Clover Valley (9N83-1) meadow impacted by past off-trail vehicle travel using revegetation methods such as seeding, willow cuttings, and transplanting sod plugs.

Blue Lakes/Meadow Lake road: The proposed action for Blue Lakes/Meadow Lake Road consists of road maintenance activities to bring the road into compliance with S&G 100 while also limiting potential impacts to Yosemite toad from vehicle travel. Specific proposed action items include:

1) **MVUM**: Add Blue Lakes/Meadow Lake road (9N01) back to the MVUM after corrective actions have occurred to restore hydrologic connectivity.
2) **Forest Order**: A seasonal closure from January 1st to July 31 would be instituted for the portion of Blue Lakes/Meadow Lake road currently closed under the travel management SEIS to limit impacts to Yosemite toad from public wheeled motor vehicle use.

3) **Road Maintenance:** Typical maintenance activities would include: maintaining/installing BMP's(Catch basins at culverts, new culverts where needed and gravel on the steep sections of the roadway, repairing rolling dips), linear grading, and clearing out/ upgrading undersized culverts within the specified alignment and grade tolerances.

Alternative 2 No Action Alternative

Under this alternative, no work would be done on Meadow Lake Road and Deer Valley Trail, and the routes would not be reopened to public wheeled motor vehicle use.

Alternative 3 Modify Seasonal Closure

Alternative 3 would be similar to the proposed action except for the following: Alternative 3 would use a seasonal closure determined by snowmelt measured at Blue Lakes for the portion of the Deer Valley 4WD Trail and Meadow Lake Road currently closed under the Eldorado National Forest Travel Management SEIS. Under Alternative 3, the LOP would exclude motorized use of the Deer Valley 4WD Trail and Meadow Lake Road for 6 weeks after documented snowmelt (i.e. snow water content < or = 1.0 inch) as reported from the Blue Lake Snow Sensor Station.

Alternative 4 Extended Seasonal Closure

Alternative 4 would be similar to the proposed action except for the following: This Alternative would implement a seasonal closure from January 1 to August 15 along the portion of Deer Valley 4wd trail currently closed under the Travel Management SEIS.

EXISTING RECREATION CONDITIONS

The Deer Valley 4wd Trail, the Blue Lakes/Meadow Lake Road, and the surrounding Blue Lakes vicinity, provide summer recreational opportunities drawing visitors mainly from California and Nevada. The Deer Valley route provides day-use and overnight recreation opportunities for 4wd, motorcycle and ATV users. Before the forest closures, the Deer Valley 4wd trail received an average of 30 Off Highway Vehicles (OHV) on a weekend day and an average 2 to 5 vehicles on a week day. The percentage of the types of OHV users can be broken down to the following: 40% 4wd/jeeps, 40% motorcycle, and 20% ATV users (Stroude, 2015).

The Deer Valley route is one of four routes that provide 4wd opportunities on the district. Three of these routes currently have temporary or partial closures. High elevation motorcycle and ATV opportunities are also limited on the district- only two other trails providing this experience exist and also have temporary closures. The Project Area is classified as Roaded Natural on the Recreational Opportunity Spectrum (ROS). The ENF LRMP (1989) provides direction for areas designated as a Roaded Natural ROS class to be managed so there is only moderate evidence of the sights and sounds of man. Interaction between users is usually low to moderate with evidence of other users prevalent. Resource modifications are evident. Capacity ranges from 0.083 to 2.5 PAOT per acre, or 2 to 5 sites per acre. When assessing recreation impacts to visitation levels, it is important to consider that the demand for OHV recreation on public land is

growing rapidly and is anticipated to continue along a steep trajectory for the foreseeable future (Holmes & Englin, 2010).

The surrounding area provides dispersed and developed camping. Most overnight users of the routes use one of the four developed sites located around Blue Lakes. Camping is offered by: (1) Upper Dam Campground, (2) Lower Blue Lakes Campground, (3) Middle Creek Campground, and (4) Middle Creek Expansion Campground. For those desiring a more rural experience, there are approximately 10-15 dispersed sites located along both the Deer Valley trail and several located near Meadow Lakes. Day users and those staying in the developed campgrounds use the Lower Blue Lake boat ramp area as a staging area for motorcycle and ATV users to load and unload recreation equipment.

Seasonal summer use of the Deer Valley 4wd route, before the forest closure, typically began immediately after snow melt with the peak recreational use in late June through October. Several time periods throughout this season are heavily used, especially during a re-occurring 4 wheel drive Poker Run event and deer hunting season. During these heavy use periods, it was common for all dispersed sites along the trail to be occupied at 100%.

ENVIRONMENTAL CONSEQUENCES

Proposed Action

Implementation of the Proposed Action will not result in significant impacts to recreation resources during construction; however, there is a potential for moderate long-term impacts.

1. **MVUM**: Adding the Deer Valley 4wd Trail back to the MVUM would ensure that the forest is providing 4wd opportunities and a range of high elevation opportunities for motorcycle and ATV opportunities on the district.
2. **Forest Order**:
    a. Deer Valley Route: A seasonal closure from January 1st to July 31st has the potential to impact recreation experiences and dispersed campsite conditions. Under the Proposed Action, the amount of visitation is expected to remain the same as it was before the temporary closure. However, the seasonal closure would significantly increase the overall recreation use on the trail during the open season as the displacement of original use (June through July 31st) would be concentrated into a shorter season. A study by Jim (1989) concludes that decreasing the length of time in a recreation season will result in an increasing intensity of recreation use when there are limited opportunities of similar experiences. With a limited amount of opportunity of high country OHV use, the use of the Deer Valley route has the potential to increase up to 40% above levels observed prior to the Travel management SEIS closure. This would increase vehicle use to an average of 119 vehicles a week (Table.1).

    The increase has the potential to negatively impact the visitor experience as visitors may experience overcrowding and visitor conflicts on high-use weekends.

According to Manning et. Al (2000; 2004), increasing visitation, visitor encounters, and visitor conflicts are likely to diminish the quality of the outdoor recreation experience that those seek in natural environments. Additionally, increased visitation levels would accelerate impacts to dispersed camping conditions and may cause a proliferation of user-created dispersed campsites as visitors cannot find a vacant existing campsite. Research findings on camping impacts (Stankey, 1982; Cole & Marion, 1986, Cole, 1987) conclude that (1) unless the use-levels are kept extremely low, some damages are unavoidable; and (2) medium- to high-level uses are bound to cause extensive damages to vegetation and soil caused by user-created campsites However, the expected moderate increase in use would still be managed under the maximum allowable campsites per acre as specified under the Roaded Natural ROS classification listed in the ENF LRMP (1989) and applicable restrictions on vehicle travel described in the ENF Travel Management EIS.

b. Meadow Lakes Road: A seasonal closure from January 1st to July 31st has the potential to impact recreation opportunities offered along 9N01 as Meadow Lake will be inaccessible during the closure. For Meadow Lake Road (9N01), the average number of days per season the road would be open to motorized wheeled vehicles would be the same as described for the Deer Valley 4wd trail. Recreationists seeking day use and camping opportunities at Meadow Lake will be the most impacted during closure but concentrated vehicle use is not expected to be a concern for the road given the current levels of recreation occurring in the area.

3. **Trail Reroute, Hardening Crossing of Meadow 9N83-2, and Stream Bank Restoration:**
Short-term impacts to recreation resources are expected to occur during the implementation of trail reroute, hardening of meadow crossing and stream bank restoration; however, these impacts would be limited to the presence of construction activities during visitor recreation experiences. These impacts are not likely to be significant since these activities would occur during weekdays when recreation use is at its lowest. Although the Deer Valley trail is within close proximity of the Mokelumne Wilderness, the proposed reroute would not impact the Wilderness character or increase the risk of motorized wheeled vehicles entering the designated wilderness.

No-Action Alternative
Implementation of the No-Action Alternative will result in significant long-term impacts to recreation resources.

Under the No-Action Alternative, Meadow Lakes Road would also continue to be inaccessible to recreationists and the Deer Valley 4wd trail would remain closed to public wheeled motor vehicle use. Day use and dispersed camping opportunities at Meadow Lakes would be lost under

this alternative; however, similar opportunities are offered in the surrounding area and are not anticipated to have significant impacts.

Conversely, although other motorcycle and ATV trail opportunities are provided on the district, this alternative would result in a significant decrease of 4wd opportunities on the district. Additionally, it would also moderately decrease high elevation opportunities for motorcycle and ATV users; however, the district provides several other opportunities for motorcycle and ATV recreation at lower elevations. In the result of a full closure, it can be assumed that visitors will choose to recreate in these lower elevation trails. Overall, decreasing high country motorized opportunities would fail to meet the demands of the public. Lastly, regardless of closure, there is a high potential that illegal use of both routes would occur.

Alternative 3 Modify Seasonal Closure

Implementation of Alternative 3 will result in moderate long-term impacts depending on snow accumulation.

A seasonal closure determined by snowmelt would result in variable start dates for vehicle access on the Deer Valley 4wd trail and Meadow Lake Road. Compared to pre-SEIS trail use levels, it is expected that wheeled motor vehicles could travel on both routes approximately six weeks later than historic levels. This would likely result in some increase in vehicle concentration on the trail as a direct result of reduced opportunities for ohv use during the shorter season. Depending on the snow accumulation, use of the route has the potential to increase from 10-55% under Alternative 3 compared to pre-SEIS estimated levels. This would increase vehicle use to an average of 94 to 132 vehicles a week on the Deer Valley route and Meadow Lake Road (Fig.1).

Compared to the proposed action and Alternative 4; the modified seasonal closure (Alt 3) could provide for the earliest or latest start date for trail/road use depending on the snow accumulation during the previous winter. Based on past data at the Blue Lakes Snow Gauge, the average date the routes would be open is July 18, but could be as early as June 24 or as late as August 20th. In high snow accumulation years the trail/road would be open much later than the proposed action (July 31st) and would have a similar impact to recreation opportunities as described for Alternative 4. In low snow accumulation years Alternative 3 would allow wheeled motor vehicles access to Deer Valley 4wd trail and Meadow Lake Road nearly six weeks earlier than the Proposed Action. While impacts from Alternative 3 for recreation opportunities will be variable depending on snow levels; In general this alternative would provide for the greatest opportunities for recreation of the three action alternatives because the routes would be open much earlier during low snow years than the proposed action or Alternative 4, and thirteen days earlier than the proposed action during average snow years.

Alternative 4 Extended Seasonal Closure

Implementation of Alternative 4 will result in moderate long-term impacts.

This alternative is expected to have the highest impact on recreation opportunities and experiences and dispersed campsite conditions. Similar to the Proposed Action, a seasonal

closure from January 1st to August 15th has the potential to impact recreation experiences and trail conditions. The seasonal closure would significantly increase overall recreation use, even more than the Proposed Action, on the Deer Valley route during the open season. OHV use in the Project Area has the potential to increase up to 50%. This would increase vehicle use to an average of 128 vehicles a week on the Deer Valley route (Table.1). The displacement of original use (June through August 15th) would be concentrated into a shorter season. Impacts to recreation resources are expected to be similar to the Proposed Action.

Table 1. Comparison of available trail days and expected intensity for Deer Valley Trail for the proposed action, Alt 3, and Alt 4.

	snow accumulation		
	low	**average**	**high**
Pre-SEIS trail Use			
start date	6/1	6/15	7/4
Available trail days (assuming 11/01 end of season)	153	139	120
intensity (avg. riders/week[1])	85 riders/week		
Proposed action			
start date	7/31		
Available trail days (assuming 11/01 end of season)	93		
intensity (avg. riders/week[1])	119 (40% increase pre-SEIS)		
Alt 3			
start date[2]	6/24	7/18	8/20
Available trail days (assuming 11/01 end of season)	130	106	73
intensity (avg. riders/week[1])	94 (10% increase pre-SEIS)	113 (33% increase pre-SEIS)	132 (55% increase pre-SEIS)
Alt 4			
start date	8/15/2015		
Available trail days (assuming 11/01 end of season)	78		
intensity (avg. riders/week[1])	128 (50% increase pre-SEIS)		

[1]Average riders/week is based on estimates from Amador District Staff familiar with trail usage (Stroude, 2015). Assumed average pre-SEIS trail usage consisted of 30 OHVs on weekend days and an average of two to five vehicles on week days. Percent increase above pre-SEIS levels are based on recreation staff's professional judgment of recreationist response to altering available trail days under Alt 1, 3, and 4.
[2] Based on past data from the Blue Lakes Snow Sensor Station (2005-2014)

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